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OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

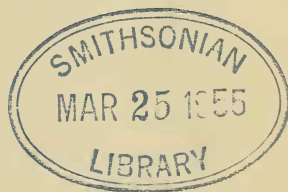
Edited by

FRANCIS HEMMING, C.M.G., C.B.E.
Secretary to the Commission

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OPINION 334

Validation, under the Plenary Powers, of the generic names *Crangon* Fabricius, 1798, and *Alpheus* Fabricius, 1798 (Class Crustacea, Order Decapoda)



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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(arranged in order of precedence by reference to date of election or of most recent re-election, as prescribed by the International Congress of Zoology).

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Professor Robert MERTENS (*Natur-Museum u. Forschungs-Institut Senckenberg, Frankfurt a. M., Germany*) (5th July 1950).

Professor Erich Martin HERING (*Zoologisches Museum der Humboldt-Universität zu Berlin, Germany*) (5th July 1950).

OPINION 334

VALIDATION UNDER THE PLENARY POWERS OF THE GENERIC NAMES "CRANGON" FABRICIUS, 1798, AND "ALPHEUS" FABRICIUS, 1798 (CLASS CRUSTACEA, ORDER DECAPODA)

RULING :—(1) Under the Plenary Powers, (a) the generic names *Alpheus* Weber, 1795, and *Crangon* Weber, 1795, are hereby suppressed for the purposes both of the Law of Priority and of the Law of Homonymy, and (b), consequentially, the names *Alpheus* Fabricius, 1798, and *Crangon* Fabricius, 1798 (Class Crustacea, Order Decapoda) are hereby validated.

(2) The under-mentioned generic names are hereby placed on the *Official List of Generic Names in Zoology* as Name Nos. 806 and 807 respectively :—(a) *Alpheus* Fabricius, 1798 (gender : masculine) (type species, by selection by Latreille (1810) : *Alpheus avarus* Fabricius, 1798) ; (b) *Crangon* Fabricius, 1798 (gender : feminine) (type species, by absolute tautonymy : *Cancer crangon* Linnaeus, 1758).

(3) The under-mentioned generic names are hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* as Name Nos. 227 to 229 respectively :—(a) *Alpheus* Weber, 1795, as suppressed under the Plenary Powers under (1) (a) above ; (b) *Crangon* Weber, 1795, as suppressed under the Plenary Powers under (1)(a) above) ; (c) *Crago* Lamarck, 1801 (a junior objective synonym of *Crangon* Fabricius, 1798, as validated under the Plenary Powers under (1)(b) above).

(4) The under-mentioned specific names are hereby placed on the *Official List of Specific Names in Zoology* as Name Nos. 287 and 289 respectively :—(a) *avarus* Fabricius, 1798, as published in the combination *Alpheus*

avarus (specific name of type species of *Alpheus* Fabricius, 1798) ; (b) *crangon* Linnaeus, 1758, as published in the combination *Cancer crangon* (specific name of type species of *Crangon* Fabricius, 1798) ; (c) *malabaricus* Fabricius, 1775, as published in the combination *Cancer malabaricus*.

(5) The under-mentioned family-group names are hereby placed on the *Official List of Family-Group Names in Zoology* with the Name Nos. 4 and 5 respectively ;—

- (a) ALPHEIDAE (correction by Randall (1839) of ALPHIDIA) Rafinesque, 1815 (type genus : *Alpheus* Fabricius, 1798, a genus having a name validated under the Plenary Powers under (1)(b) above) ;
- (b) CRANGONIDAE White, 1847 (type genus : *Crangon* Fabricius, 1798, a genus having a name validated under the Plenary Powers under (1)(b) above).

(6) The under-mentioned family-group names are hereby placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* with the Name Nos. 18 to 24 respectively :—

- (a) the following family-group names for the taxon having *Alpheus* Fabricius, 1798, as type genus :—
 - (i) ALPHIDIA Rafinesque, 1815 (an Invalid Original Spelling for ALPHEIDAE) ;
 - (ii) ALPHÉENS Milne Edwards (H.), 1837 (invalid because a vernacular (French) word and not a Latin or Latinised word) ;
 - (iii) ALPHAEIDAE Balss, 1915 (an Erroneous Subsequent Spelling for ALPHEIDAE (correction of ALPHIDIA) Rafinesque, 1815) ;
 - (iv) ALPHEUIDAE Yu, 1936 (an Erroneous Subsequent Spelling for ALPHEIDAE (correction of ALPHIDIA) Rafinesque, 1815) ;
- (b) CRAGONIDAE Rathbun, 1904 (type genus : *Crago* Lamarck, 1801) (invalid because the type genus

of the family so named has, as its type species, the nominal species *Cancer crangon* Linnaeus, 1758, which is also the type species of the nominal genus *Crangon* Fabricius, 1798 (a genus having a name validated under the Plenary Powers under (1)(b) above), which is the type genus of the family-group name CRANGONIDAE White, 1847) ;

(c) CRANGONIENS Milne Edwards (H.), 1837 (type genus : *Crangon* Fabricius, 1798) (invalid because a vernacular (French) word and not a Latin or Latinised word) ;

(d) CRANGONIDAE Rathbun, 1904 (type genus : *Crangon* Weber, 1795) (invalid (i) because the generic name *Crangon* Weber, 1795, has been suppressed under the Plenary Powers under (1)(a) above, and (ii) because the family-group name CRANGONIDAE Rathbun, 1904, is a junior homonym of the name CRANGONIDAE White, 1847 (type genus : *Crangon* Fabricius, 1798)).

I.—THE STATEMENT OF THE CASE

The problem presented by the names *Alpheus* Weber, 1795, and *Crangon* Weber, 1795, on the one hand and on the other hand by the names *Alpheus* Fabricius, 1798, and *Crangon* Fabricius, 1798, was brought to the attention of the International Commission by Dr. L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) in June 1946 in an application which in addition dealt with a number of other generic names in the Order Decapoda (Class Crustacea). Later, as explained in paragraph 3 below, it was judged more convenient that the proposals relating to the foregoing names should be embodied in a separate application. The application was accordingly

recast from this point of view and in addition for the purpose of taking note of certain decisions on matters of presentation taken by the Thirteenth International Congress of Zoology, Paris, 1948. The revised application, as finally submitted on 2nd September 1950, was as follows :—

**Proposed use of the Plenary Powers to validate the generic name
“Crangon” Fabricius, 1798, for the Common Shrimp and the
generic name “Alpheus” Fabricius, 1798, for the Snapping
Shrimps (Class Crustacea, Order Decapoda)**

By L. B. HOLTHUIS

(*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

1. The present application relates to two generic names in the Crustacea Decapoda, each of which is commonly used by the majority of carcinologists, but each of which, under a strict application of the *Règles*, is inapplicable in the sense in which it is employed. For each of these names (*Alpheus* Fabricius, 1798, and *Crangon* Fabricius, 1798) is an invalid junior homonym of an identical generic name published in a different sense by Weber in 1795. The strict application of the *Règles* to these names would involve the transfer of the generic name *Crangon* (as of Weber, 1795) from the Common Shrimp to a genus of Snapping Shrimps. The ruthless application of the *Règles* in this way would lead to enormous confusion, not only in systematic literature but also in economic fisheries literature. It would also cause the most serious confusion in the teaching of zoology.

2. The following are the original references to the generic names dealt with in the present application :—

Alpheus Weber, 1795, *Nomencl. ent.* : 91.

Alpheus Fabricius, 1798, *Suppl. Ent. syst.* : 380, 404 (type species, by subsequent selection by Latreille, 1810 (*Consid. gén. Anim. Crust. Arach. Ins.* : 422) : *Alpheus avarus* Fabricius, 1798, *Suppl. Ent. syst.* : 404).

Crangon Weber, 1795, *Nomencl. ent.* : 94 (type species, by monotypy : *Astacus malabaricus* Fabricius, 1775, *Syst. Ent.* : 415).

Crangon Fabricius, 1798, *Suppl. Ent. syst.* : 387, 409 (type species, by absolute tautonymy : *Cancer crangon* Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 632).

Crago Lamarck, 1801, *Syst. Anim. sans Vertèbr.* : 159 (type species, by monotypy : *Cancer crangon*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 632).

3. Prior to the year 1904, Weber's generic names had been ignored and the Common Shrimp had been placed in the genus *Crangon* Fabricius, 1798, while the generic name *Alpheus* Fabricius, 1798, had been used for Snapping Shrimps. In the year 1904, however, Rathbun revived the names in Weber's *Nomenclator entomologicus* of 1795 and accordingly pointed out (*Proc. biol. Soc. Wash.* 17 : 170) that under the Law of Priority the name *Alpheus* was not available for the Snapping Shrimps, the name *Alpheus* Fabricius, 1798, having, as its type species, a species (*Alpheus avarus* Fabricius, 1798) that was congeneric with the species (*Astacus malabaricus* Fabricius, 1775) which was the type species of the earlier generic name *Crangon* Weber, 1795. Under the *Règles*, Rathbun was entirely correct in the contention which she so advanced. The generic name *Crangon* Weber, 1795, though published without any description, contained four nominal species of which one (*Astacus malabaricus* Fabricius) was the name of a previously published nominal species; the generic name *Crangon* Weber, 1795, thus satisfies the requirements of Proviso (a) to Article 25, even under the narrow definition laid down in the Commission's *Opinion* 1, for, being a monotypical genus, it had an indicated type species. Rathbun further argued that the name *Alpheus* Fabricius, 1798, was invalid as a junior homonym of the generic name *Alpheus* Weber, 1795, a genus established without a description or definition, with no designated or indicated type species and with more than one previously published nominal species referred to it. At that time generic names published in this manner were commonly treated as satisfying the requirements of Proviso (a) to Article 25 (notwithstanding the explicit provisions in *Opinion* 1). It was not until 1948 that all doubt on this subject was removed by the Thirteenth International Congress of Zoology, when it inserted words in the *Règles* to secure "that a generic or sub-generic name published before 1st January 1931, shall be available under Article 25 as from the date of its original publication not only when (as at present) it was then accompanied by a definition or description or when the genus was monotypical or when a type species was designated or indicated by the original author when publishing the name but also when the name, on being first published, was accompanied by no verbal definition or description, the only indication given being that provided by the citation under the generic or subgeneric name concerned of the names of one or more previously published nominal species ("Official Record of Proceedings of the International Commission on Zoological Nomenclature at its Session held in Paris in July, 1948", in 1950, *Bull. zool. Nomencl.* 4 : 78—80). Thus, under the Paris amendment of Article 25 Rathbun's rejection of the name *Alpheus* Fabricius, 1798, as a junior homonym of the name *Alpheus* Weber, 1795, is retrospectively rendered quite correct.

4. Rathbun pointed out also that the name *Crangon* Fabricius, 1798, was a junior homonym of the name *Crangon* Weber, 1795 (which, as explained above, she applied to the Snapping Shrimps) and therefore that for this reason also the Common Shrimp could no longer be known

by the name *Crangon*. She accordingly adopted for the Common Shrimp the name *Crago* Lamarck, 1801, the oldest published generic name for that species.

5. Rathbun thus used the generic name *Crangon* Weber, 1795, for the genus of Snapping Shrimps hitherto called by the name *Alpheus* Fabricius, 1798, and the name *Crago* Lamarck, 1801, for the Common Shrimp hitherto called by the name *Crangon* Fabricius, 1798. Prior to the publication of her paper, all authors used the name *Crangon* Fabricius, 1798, for the Common Shrimp and the name *Alpheus* Fabricius, 1798, for the genus of Snapping Shrimps ; since the publication of her paper, the majority of workers have continued to use these names in this way, Rathbun being followed almost exclusively by American authors only. Thus, in the literature which I have myself examined, more than 340 authors (of whom 170 published their papers after 1904) have used the name *Crangon* Fabricius, 1798, for the Common Shrimp, while only about 40 have used the name *Crago* Lamarck, 1801, for that species. The name *Alpheus* Fabricius, 1798, has, to my knowledge, been used for the Snapping Shrimp by more than 220 authors (of whom 110 published their papers after 1904), while only about 50 authors have used the name *Crangon* Weber, 1795, in this sense.

6. The genus *Crangon* Fabricius (= *Crago* Lamarck) is the commonest genus of shrimps on the coasts of the northern parts of the Atlantic and Pacific Oceans and is of great economic importance ; the genus *Alpheus* Fabricius (= *Crangon* Weber) is the largest genus of Snapping Shrimps, containing over 180 species, and is widely distributed throughout the tropical and sub-tropical regions of the globe. It is therefore of the highest importance to put an end to the present state of confusion and to secure that for the future there shall be uniformity in the names applied to these genera. Further, both *Crangon* Fabricius and *Alpheus* Fabricius are the type genera of families ; these families are known by European workers as CRANGONIDAE and ALPHEIDAE respectively, but by American authors as CRAGONIDAE and CRANGONIDAE ; this difference in the names used for these well-known families is extremely confusing, more especially as it involves the transfer of the name CRANGONIDAE from one family to another and the use for the two families of names CRANGONIDAE and CRAGONIDAE which, being derived from the same word, are undesirably similar to one another. The transfer, as between these two families, of the name CRANGONIDAE would give rise to a further confusion through the fact that the family known by this name by European workers contains a number of genera, the names of which are based upon the word *Crangon*, e.g., *Notocrangon* Coutière, 1900 ; *Sclerocrangon* Sars, 1882 ; *Prionocrangon* Wood-Mason, 1891 ;

Paracrangon Dana, 1852. The existence of these names would be extremely anomalous if the generic name *Crangon* were to be removed to a different family and would be a permanent cause of confusion and misunderstanding. Similarly, the family known as ALPHEIDAE by European workers contains genera, the names of which are based on the word *Alpheus*, e.g., *Synalpheus* Bate, 1888 ; *Alpheopsis* Coutière, 1897 ; *Alpheinus* Borradaile, 1899. The existence of genera with such names in a family called CRANGONIDAE would be a further source of confusion.

7. Accordingly, I ask the International Commission on Zoological Nomenclature to use their Plenary Powers to prevent the permanent confusion that is otherwise unavoidable. The concrete proposals which I therefore submit for consideration are that the Commission should :—

(1) use their Plenary Powers :—

(a) to suppress the under-mentioned generic names :—

(i) *Alpheus* Weber, 1795 ;

(ii) *Crangon* Weber, 1795 ;

(b) to validate the under-mentioned generic names :—

(i) *Alpheus* Fabricius, 1798 ;

(ii) *Crangon* Fabricius, 1798 ;

(2) place the under-mentioned generic names on the *Official List of Generic Names in Zoology*, with the type species severally specified below :—

(a) *Alpheus* Fabricius, 1798 (type species, by subsequent selection by Latreille (1810) : *Alpheus avarus* Fabricius, 1798) ;

(b) *Crangon* Fabricius, 1798 (type species, by absolute tautonymy : *Cancer crangon* Linnaeus, 1758) ;

(3) place the under-mentioned generic names on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—

(a) *Alpheus* Weber, 1795, as suppressed under (1) (a) (i) above ;

(b) *Crangon* Weber, 1795, as suppressed under (1) (a) (ii) above ;

(c) *Crago* Lamarck, 1801 (an objective synonym of *Crangon* Fabricius, 1798, as validated under (1) (b) (ii) above) ;

- (4) place the under-mentioned trivial names on the *Official List of Specific Trivial Names in Zoology* :—
- (a) *avarus* Fabricius, 1798, as published in the binominal combination *Alpheus avarus* ;
 - (b) *crangon* Linnaeus, 1758, as published in the binominal combination *Cancer crangon*.

8. I should add, with reference to the decision by the Thirteenth International Congress of Zoology, that in future the gender of every generic name added to the *Official List* is to be specified therein (1950, *Bull. zool. Nomencl.* 4 : 341), that the gender of the generic name *Alpheus* is masculine and that of the generic name *Crangon* is feminine.

II.—THE SUBSEQUENT HISTORY OF THE CASE

2. Registration of the present application : Immediately upon the receipt of Dr. Holthuis's preliminary communication in June 1946 the problem presented by the uses of the names *Alpheus* and *Crangon* by Weber in 1795 and by Fabricius in 1798 was allotted the Registered Number Z.N.(S.) 231. When later the family-group-name aspect of the present case came to be examined, the Registered Number Z.N.(S.) 849 was allotted to this part of the subject.

3. Revision of the present application and its re-submission in 1950 : As has already been explained (in paragraph 1 above), the problem presented by the divergent uses of the names *Alpheus* and *Crangon* was originally submitted to the Commission in June 1946 in an application in which Dr. Holthuis dealt also with the problems presented by a number of other generic names in the Order Decapoda. It had not been possible to make any progress with the foregoing application by the time of the Session held by the International Commission at Paris in 1948 and the present matter was accordingly not placed before the Commission

on that occasion. Shortly after the close of the Paris Session Dr. Holthuis submitted (on 26th October 1948) a revision of the application which he had prepared in 1946. At that time the entire resources of the Secretariat of the Commission were being directed to the preparation and publication of the Official Records of the Paris Session and it was impossible to devote attention to applications relating to individual names. It was not until after the publication in 1950 of the Paris volumes of the *Bulletin of Zoological Nomenclature* that it was possible to resume the publication of applications on individual cases submitted by specialists for decision. In the summer of that year it was agreed between the Secretary and Dr. Holthuis that the *Alpheus/Crangon* case should be submitted to the Commission as a separate application instead of, as previously proposed, as a part of a wider application relating to the names of a number of genera of the Order Decapoda. At the same time it was agreed that the revised application should contain proposals for the placing on the *Official Lists* and *Official Indexes* of the names which entered into that case, thereby complying with the General Directive issued to the Commission by the Paris Congress in regard to matters of procedure. The application in this case, revised from the foregoing points view, was resubmitted to the Commission on 2nd September 1950.

4. Consultations undertaken prior to the publication of the present application : On 22nd March 1949, Dr. Henning Lemche (*Universitetets Zoologiske Museum, Copenhagen*) transmitted to the Commission an application prepared by Dr. Poul Heegaard (*University of Copenhagen, Denmark*) containing proposals for dealing with the present case substantially the same as those already submitted by Dr. Holthuis. When in the autumn of 1950 Dr. Holthuis's paper was being prepared for publication, the Secretary notified Dr. Heegaard of Dr. Holthuis's earlier application and suggested that it might be found convenient if, instead of submitting a separate application, he were to furnish a statement supporting the action advocated by Dr. Holthuis. Dr. Heegaard intimated that he would gladly adopt this course and accordingly on 24th November 1950 submitted a note re-stating his proposals in the form of support for the same proposals as submitted by Dr. Holthuis. In December 1949 Mr. Hemming invited Dr. Robert Gurney (*Oxford*), who had

previously criticised the use of the name *Alpheus* and *Crangon* in the sense of Weber (1795), to submit a formal statement of his views for the consideration of the Commission. This Mr. Gurney did under cover of a letter dated 22nd December 1949. Finally, in August 1950, Mr. Hemming wrote to Dr. Fenner A. Chace (*United States National Museum, Washington, D.C., U.S.A.*), who was known to support the Weberian use of the names *Alpheus* and *Crangon* in opposition to the Fabrician use advocated by Dr. Holthuis, and invited him to furnish the Commission with a statement of his views on the problems involved. This Dr. Chace did in two letters of which the first was dated 15th September 1950 and the second 20th October 1950. The second of these letters contained also a review of the literature prepared to show the relative extent to which the Weberian and Fabrician usages of the names *Alpheus* and *Crangon* had been followed by carcinologists. On the receipt of the foregoing letter (on 4th December 1950) Mr. Hemming communicated a copy of it to Dr. Holthuis, explaining that in a case such as the present where it was known that there were sharply marked differences of usage among specialists, it was particularly helpful to the Commission if it could be furnished with a statement of the facts agreed upon by both sides, for such a statement relieved the Commission of the necessity of itself investigating the historical background and enabled it to concentrate its attention exclusively upon the action which it was desirable should be taken; Mr. Hemming accordingly invited Dr. Holthuis to furnish a brief comment upon the summary prepared by Dr. Chace, so that the two documents could be published simultaneously with the application submitted by Dr. Holthuis. On 14th December 1950, Dr. Holthuis complied with the foregoing request, furnishing a statement that he was in substantial agreement with the summary prepared by Dr. Chace. The documents discussed above, that is, the comments obtained from Dr. Poul Heegaard, Dr. Robert Gurney and Dr. Fenner A. Chace, together with Dr. Holthuis's comment upon the last-named document, are reproduced in the immediately following paragraphs.

5. Support for Dr. Holthuis's proposals received from Mr. Robert Gurney (Oxford) : On 22nd December 1949, Mr. Robert Gurney

(Oxford) furnished the following statement in support of the application submitted by Dr. Holthuis :—

I understand that Dr. P. Heegaard had made application to the International Commission on Zoological Nomenclature to restore the names *Crangon* Fabricius, 1798, and *Alpheus* Fabricius, 1798, to their original meaning by over-riding the earlier use of the first of these names by Weber in 1795 which were declared to be available under the Commission's *Opinion* 17. I should like to support Dr. Heegaard's application.

2. Weber's *Nomenclator entomologicus* is a compilation of *nomina nuda* which has not, and presumably never had, any scientific value. So far as the Crustacea are concerned, the only claim to validity that any of the specific names have is derived from their reference to Fabricius' *Entomologia systematica*. The generic names, on the other hand, are borrowed from Fabricius' *Supplementum*, which was not published until 1798, but these names are applied by Weber in a sense entirely different from Fabricius' intention. *Opinion* 17 places us in the ridiculous position of accepting specific names when they refer to the *Entomologia systematica*, but rejecting those taken from the *Supplementum* because this had not then been published ; while generic names taken from the *Supplementum*, and misplaced, are accepted as available because they were published before it! The minority view expressed by Hoyle at the time when *Opinion* 17 was rendered gives the commonsense view.

3. The consequences of *Opinion* 17 have been disastrous. The name *Crangon*, unless accompanied by some explanation, has ceased to be intelligible to anyone not a specialist in Crustacean systematics. Any student of geographical distribution, for instance, might be seriously misled by species of *Crangon* appearing in faunistic lists.

6. Support for Dr. Holthuis's proposals received from Dr. Poul Heegaard (University of Copenhagen, Denmark) : On 24th November 1950 Dr. Poul Heegaard (*University of Copenhagen, Denmark*) furnished the following statement which, as he explained, he had prepared in support of the proposals submitted by Dr. Holthuis in place of an application on similar lines which he had himself submitted to the Commission in March 1949 (see paragraph 4 above) :—

The urgent need for securing a definite ruling on the manner in which the generic names *Crangon* and *Alpheus* should be used and thus

putting an end to the confusion which has arisen through the use by some authors of these names in the manner adopted by Weber in 1795 instead of in the manner adopted by Fabricius in 1798, which had hitherto been accepted by all authors, led me in March, 1949, to submit an application to the International Commission on Zoological Nomenclature asking (1) that the Plenary Powers should be used to suppress the above names as published by Weber, and (2) to validate the use of those names in the accustomed Fabrician sense. I am informed, however, by the Secretary to the Commission that an application in a similar sense was submitted to the Commission by Dr. L. B. Holthuis of the Rijksmuseum van Natuurlijke Historie, Leiden, in November, 1946. The Secretary to the Commission has communicated to me the text of Dr. Holthuis' application, with which I find myself in complete agreement. In these circumstances I do not think it necessary to proceed with my application. It will be sufficient if I express my strong hope that the Commission will, as proposed, solve this problem by validating the names *Crangon* Fabricius and *Alpheus* Fabricius with the type species severally specified in Dr. Holthuis' application.

7. Objection to Dr. Holthuis's proposals received from Dr. Fenner A. Chace, Jr. (United States National Museum, Washington, D.C., U.S.A.) and a survey of the relative frequency in the literature of the employment by carcinologists of the Weberian and Fabrician usages of the names "Alpheus" and "Crangon" respectively : The following are extracts from letters dated 15th September 1950 and 20th October 1950 in which Dr. Fenner A. Chace, Jr. (*United States National Museum, Washington, D.C., U.S.A.*) expressed his objections to the proposal submitted by Dr. Holthuis that the Commission should validate the Fabrician usage of the names *Alpheus* and *Crangon* under its Plenary Powers, and in the second of which he gave a survey of the literature showing the relative weight of the usage of these names by active carcinologists in the sense of Weber (1795) and Fabricius (1798) respectively :—

A. Extract from a letter dated 15th September, 1950.

1. Thank you very much for your letter of 29th August, 1950, and the enclosed copy of your letter to Dr. Holthuis regarding the *Crangon-Alpheus-Crago* matter. It is good to know that some action can be expected on this question before long.

2. I do not have time just now to review the literature as carefully as I would like to do before submitting a comprehensive statement of

my views. I assume that such a statement is not needed or even wanted until after the publication of Dr. Holthuis's application. As I have written Dr. Holthuis, however, it is my feeling that suspension of the rules regarding this question at this late date will not entirely clarify the situation. All of the American carcinologists have, to my knowledge, accepted *Crangon* for *Alpheus* and *Crago* for *Crangon* and this change has become firmly established in the American literature. I also know of one European—and there may be others—who has also made this change. Had the application been made when Miss Rathbun proposed the adoption of Weber's name, I would have been inclined to uphold it, inasmuch as the names of two very large genera were involved. I have also written Dr. Holthuis that I personally will be willing to accept any measures recommended by the Commission and I feel fairly certain that most American authors would eventually follow suit. However, this would not remove the confusion from synonymies any more than would the eventual adoption of Miss Rathbun's changes by workers in other parts of the world.

3. I will try to submit a more detailed analysis at a later date.

B. Extract from a letter dated 20th October, 1950.

4. Please excuse the delay in replying to your letter Z.N.(S.) 231 of 30th September, 1950, regarding the application of Dr. L. B. Holthuis, of the Rijks-museum at Leiden, for a decision by the International Commission on Zoological Nomenclature covering *Crangon* versus *Alpheus* and *Crago* versus *Crangon*. It has taken some time to compile and analyse a bibliography for these genera for the past 45 years, and there is always too little time to devote to such research. I must confess that I owe a very real debt of gratitude to Dr. Holthuis in this connection ; without a copy of an unpublished synonymy and bibliography of the caridean decapod crustaceans which he prepared a few years ago, this survey would have required a great deal more time and would have been much less complete.

5. As mentioned in my letter of 15th September, 1950, the change from *Alpheus* Fabricius, 1798, to *Crangon* Weber, 1795, and from *Crangon* Fabricius, 1798, to *Crago* Lamarck, 1801, is now recognised by practically all of the active specialists on decapod Crustacea in this country. It has been accepted by J. C. Armstrong, E. P. Creaser, M. W. Johnson, W. L. Schmitt and myself, and rejected only by L. Boone. The use of *Crangon* of Weber and *Crago* of Lamarck by most of the specialists has led to the complete acceptance of the names in all of the ecological and other publications in this country that I have been able to find. Recent biologists, other than taxonomists, who have used the names in this sense include : B. R. Coonfield, H. H. Darby,

W. M. Hess, W. G. Hewatt, Johnson and Snock, G. E. MacGinitie, and A. S. Pearse.

6. In South America, these generic names apparently have not been used in either sense by any decapod specialists who are still active, but *Alpheus* has been employed by two Brazilian ecologists, L. H. Matthews and L. P. H. de Oliveira.

7. The only active carcinologist in the Hawaiian Islands who has published extensively on decapods, C. H. Edmondson, has used *Crangon* for the snapping shrimps since 1923. This name is also being accepted by A. H. Banner in a forthcoming report on the snapping shrimps of the eastern Pacific islands.

8. *Alpheus* has been retained by E. P. Estampador and H. A. Roxas of the Philippine Islands, but neither of these authors can be considered active crustacean taxonomists.

9. In Japan, D. Miyadi and Y. Yokoya have retained *Alpheus*, while Maki and Tsuchikya and T. Urita have accepted *Crangon* for the snapping shrimps. All of these may be considered professional carcinologists.

10. In Australia, both of the specialists on shrimps, H. M. Hale and F. A. McNeill, made the change to *Crangon* in 1926 and 1927, and two other authors who have published little taxonomically, B. H. Anderson and J. A. Tubb, have followed their example.

11. The only active Chinese worker to publish on the genera, S. C. Yu, accepted *Crangon* in 1935.

12. One Indo-Chinese student, R. Serene, has retained *Alpheus*, but there is no indication that he has published more than a preliminary faunal list.

13. A Siamese author, C. Suvatti, has employed *Crangon*, but he also is not a professional carcinologist.

14. In India, *Alpheus* has been used by Panikkar and Aiyar, but these authors are evidently not primarily taxonomists.

15. One Soviet publication, by Derjugin and Kobjakova, lists *Alpheus*, but there is no evidence that these workers are still active.

16. In South Africa, K. H. Barnard continues to accept *Alpheus* in his extensive monograph on the decapods of South Africa published this year.

17. Finally, in Europe, the change from *Alpheus* to *Crangon* has been accepted much more slowly than elsewhere. The active carcinologists who continue to employ *Alpheus* include : H. Blass, I. Gordon, L. B. Holthuis, M. V. Lebour, A. Nobre, O. Pesta, E. Sivertsen, and R. Zariquiey Alvarez. Two active European specialists, J. Hult and T. Monod, have accepted the change to *Crangon*. Of the European authors who are not primarily specialists in the field at the present time, W. Arndt, P. Audigé, M. Kollmann, T. P. Maccagno, L. Nouvel-Van Rysselberge, F. S. Russell, and P. Volz have used *Alpheus* and only one, T. A. Stephenson, has accepted *Crangon*.

18. This survey shows that of the 26 active carcinologists here recognised who have published on this genus of snapping shrimps, exactly half have accepted the change to *Crangon* and half have retained *Alpheus*. The shift to *Crangon* which became significant soon after 1920 and has steadily increased since then, has been retarded primarily by the European workers who have been reticent to change the name of the commercial shrimp of northern Europe from *Crangon* to *Crango* and who have also been averse on purely personal grounds from accepting any of Weber's generic names.

19. As I wrote in my earlier letter, had Dr. Holthuis's application been made 25 or 30 years ago when *Crangon* had not become firmly entrenched in much of the carcinological and ecological literature for the genus of snapping shrimps, I believe that I would have supported it because of its bearing on two of the largest families of caridean crustaceans. Now, however, I cannot see that anything is to be gained by exercise of the Plenary Powers of the Commission. If *Crangon* of Weber is placed on the *Official List*, the European shrimps assigned to *Crangon* of Fabricius by most European workers will have to be shifted to *Crango* of Lamarck. This change is not as radical as it might be because of the fortunate similarity in names. On the other hand, if Weber's name is rejected, not only will the name of the commercial shrimps of the Pacific coast of North America have to be changed from *Crango* (which has become firmly established) back to *Crangon*, but the use of *Crangon* for the snapping shrimps, which has been invariably the case in the rather extensive American technological literature dealing with underwater sound and sonar devices during and since World War II, will have to be abandoned in favour of *Alpheus*. This latter is an important factor for consideration.

20. The contention might be made that a favourable action on Dr. Holthuis's application would be more generally accepted than an unfavourable one, because of the aversion of European workers to the adoption of Weber's names but I do not think that this factor is of great significance. I feel sure that Dr. Holthuis, like most of the carcinologists in other countries, will follow any recommendation made by the Commission in this case. There is little question that Dr. Holthuis is

the foremost authority on the Caridea in the world today and, as such, his usage will almost surely be followed by nearly all of the other decapod specialists, especially those of his generation which will soon become the predominant group in Europe and elsewhere.

8. Acceptance by Dr. Holthuis of the analysis by Dr. Fenner A. Chace, Jr., of the relative frequency of the employment in carcinological literature of the Weberian and Fabrician usages of the names "Alpheus" and "Crangon" respectively : On 14th December 1950 Dr. Holthuis furnished the following statement in which, subject to notes on certain minor points, he accepted the analysis given in Dr. Fenner A. Chace's letter of 20th October 1950 of the relative frequency of the employment in carcinological literature of the Weberian and Fabrician usages of the names *Alpheus* and *Crangon* respectively :—

1. The enumeration of workers in carcinology compiled by Dr. Fenner A. Chace, Jr., gives a clear picture of the present situation. I should like to add only a few remarks, mainly concerning the European authors ; these remarks, however, will not cause many changes to the picture as a whole.

2. *Europe.* I should like to omit from Dr. Chace's list the names of A. Nobre and W. Arndt, since both these authors died some time ago. The opinion of Nobre, who wrote a handbook on the Decapods of Portugal, will continue to exercise much influence, especially in his country. Furthermore, I should like to include among the active European decapod specialists A. Brian, A. Giordani Soika, H. Nouvel and E. Sollaud, all of whom use the names *Alpheus* Fabricius and *Crangon* Fabricius. It, of course, is possible to add a considerable number of names to the second group mentioned by Dr. Chace, namely that containing authors who are not primarily specialists in decapod taxonomy. However, it certainly has not been Dr. Chace's intention to make this list complete either for the American or the European authors. Furthermore here may be mentioned a group of authors, who are still living, but who have not been active in the field of Decapod Crustacea for a long time : W. T. Calman, one of the greatest authorities on Crustacea, H. Coutière, once the best specialist of the family ALPHEIDAE, A. Schellenberg, who wrote a monographic treatment of the German Decapods, and B. Parisi, while perhaps O. Pesta also is better placed here. All these authors too use the names *Alpheus* Fabricius and *Crangon* Fabricius. Summarising, we may state that when in America the name *Crago* Lamarck and *Crangon* Weber are accepted by practically all specialists and non-specialists, in Europe

the names *Crangon* Fabricius and *Alpheus* Fabricius are equally unanimously accepted. (J. Hult used the name *Crangon* Weber, when dealing with material from the Galapagos Archipelago ; Th. Monod did so with West African material, and J. A. Stephenson with material from the Great Barrier Reef of Australia.)

3. *Soviet Union*. J. A. Birstein, one of the foremost Russian authorities on Decapod Crustacea at present, uses the name *Crangon* Fabricius for the common shrimp.

4. *China*. S. C. Yu died some time ago. His work on Chinese Decapods, however, probably will exercise its influence in China for a long period to come, especially so since he gave a revision of the Chinese species of *Alpheus*, which genus was named *Crangon* Weber by him.

5. *Japan*. One of the foremost Japanese specialists of Decapoda Macrura of the present time, I. Kubo, uses the name ALPHEIDAE for the family of Snapping Shrimps.

6. Summarising, I get the following numbers of active Decapod specialists : those using the names *Crangon* Weber and *Crago* Lamarck number 13 (I include A. H. Banner, which Dr. Chace clearly did not), those employing the names *Crangon* Fabricius and *Alpheus* Fabricius number 15. These figures thus differ quite insignificantly from those given by Dr. Chace. Since it is very difficult to define an "active carcinologist," the numbers may be changed in either direction with reasonable arguments for so doing. It is next to impossible to give, for active non-specialists working with the two genera in question, figures similar to those given above for active decapod specialists ; for here it is in most cases hardly possible to determine whether a worker is active or not. Still, the opinion of these non-specialists is perhaps more important than that of the specialists, since the former are more numerous and are more in need of a stabilised name than the latter.

9. **Publication of the present application** : The present application was sent to the printer in December 1950 and, together with the documents reproduced in paragraphs 5 to 8 above, was published on 20th April 1951 in Part 3 of volume 2 of the *Bulletin of Zoological Nomenclature* (Holthuis, 1951, *Bull. zool. Nomencl.* 2 : 69—72 ; Heegaard, 1951, *ibid.* 2 : 73 ; Gurney, 1951, *ibid.* 2 : 74 ; Chace, 1951, *ibid.* 2 : 75—78 ; Holthuis, 1951, *ibid.* 2 : 79—80 (supplementary note)).

10. Issue of Public Notices : Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* 4 : 51—56), Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 20th April 1951, both in Part 3 of volume 2 of the *Bulletin of Zoological Nomenclature*, the Part in which Dr. Holthuis's application was published, and also to the other prescribed serial publications. In addition, Public Notice was given to a number of other zoological serial publications in Europe and America.

11. Comments received in regard to the present application : In all, comments were received from thirteen specialists as the result either of the publication of the prescribed Public Notices or of information furnished to specialists shortly before publication. The specialists from whom these comments were received are listed below. Against the name of each of these specialists is given the number of the paragraph in the present *Opinion* in which the comment furnished is reproduced.

(a) *Specialists who favoured the Fabrician usage of the names "Alpheus" and "Crangon" and therefore supported Dr. Holthuis's application*

- H. NOUVEL, Université de Toulouse, Faculté des Sciences, Toulouse, France (paragraph 12)
- R. PH. DOLLFUS, Muséum National d'Histoire Naturelle, Paris (paragraph 13)
- MARIE V. LEBOUR, The Laboratory, Citadel Hill, Plymouth, England (paragraph 14)
- A. B. NEEDLER, Fisheries Research Board of Canada, Atlantic Biological Station, St. Andrews, N.B., Canada (paragraph 15)
- HEINRICH BALSS, Hauptkonservator der Zoologischen Staatssammlung, München a. D., Germany (paragraph 16)
- E. SOLLAUD, Université de Lyon, Faculté des Sciences, Lyon, France (paragraph 17)
- RICARDO ZARIQUIEY, Enfermedades de la Infancia, Barcelona, Spain (paragraph 18)

(b) *Specialists who favoured the Weberian usage of the names "Alpheus" and "Crangon" and therefore opposed Dr. Holthuis's application*

ALBERT H. BANNER, University of Hawaii, Honolulu, Territory of Hawaii (paragraph 19)

HERBERT M. HALE, The South Australian Museum, Adelaide, South Australia (paragraph 20)

WALDO L. SCHMITT, Smithsonian Institution, U.S. National Museum, Washington, D.C., U.S.A. (paragraph 21)

FRANK A. MCNEILL, Australian Museum, Sydney, New South Wales, Australia (paragraph 22).

CHARLES H. BLAKE, Massachusetts Institute of Technology, Department of Biology, Cambridge, Mass., U.S.A. (paragraph 23)

BELLE A. STEVENS, Department of Zoology, University of Washington, Seattle, Washington, U.S.A. (paragraph 24)

12. Support received from H. Nouvel (Université de Toulouse, Faculté des Sciences, Toulouse) : Under cover of a letter dated 6th June 1951 Professor Pierre Bonnet, communicated to the Commission the following statement by Professor H. Nouvel (*Université de Toulouse, Faculté des Sciences, Toulouse*) in support of Dr. Holthuis's application (Nouvel, 1951, *Bull. zool. Nomencl.* 2 : 342—343) :—

Au cours d'une conversation avec le Dr. L. B. Holthuis et alors que je lui faisais part de ce qu'à mon avis, la stricte application des *Règles Internationales de Nomenclature* pouvait avoir d'irritant et de néfaste dans certains cas particuliers, à l'appui de mon opinion, je citais le fameux exemple "*Crangon-Crago-Alpheus*". J'ajoutais que l'initiative de Rathbun était le plus bel exemple de ce qu'un spécialiste *ne devait pas faire*. Je lui disais aussi que personnellement, j'avais découvert des cas semblables au cours de mes recherches bibliographiques mais je me faisais un *devoir* de ne pas les dévoiler. C'est seulement après cette déclaration que le Dr. Holthuis m'a fait part de sa proposition relativement à ce cas précis.

Il me paraît inutile de reprendre les arguments fort pertinents de MM. Holthuis et Gurney. Je voudrais seulement insister sur l'argument de *bon sens*.

13. Support received from Professor R. Ph. Dollfus (Muséum National d'Histoire Naturelle, Paris) : On 25th June 1951 Professor R. Ph. Dollfus (*Muséum National d'Histoire Naturelle, Paris*) submitted the following note in support of Dr. Holthuis's application (Dollfus, 1952, *Bull. zool. Nomencl.* **6** : 181) :—

Je suis pour la validation de *Crangon* Fabricius, 1798, et d'*Alpheus* Fabricius, 1798, d'accord avec L. B. Holthuis.

14. Support received from Dr. Marie V. Lebour (The Laboratory, Citadel Hill, Plymouth, England) : On 4th July 1951 Dr. Marie V. Lebour (*The Laboratory, Citadel Hill, Plymouth, England*) addressed to the Commission the following letter in support of Dr. Holthuis's application (Lebour, 1951, *Bull. zool. Nomencl.* **2** : 340) :—

I have just received a paper from Dr. L. B. Holthuis of Leiden (1951, *Bull. zool. Nomencl.* **2** : 69—72) on the proposed use of the Plenary Powers to validate the generic name *Crangon* Fabricius, 1798, for the Common Shrimp and the generic name *Alpheus* Fabricius, 1798, for the Snapping Shrimps (Class Crustacea, Order Decapoda), and I wish to state that I heartily agree with his views.

15. Support received from Dr. A. B. Needler (Fisheries Research Board of Canada, Atlantic Biological Station, St. Andrews, N.B., Canada) : On 5th July 1951 Dr. A. B. Needler (*Fisheries Research Board of Canada, Atlantic Biological Station, St. Andrews, N.B., Canada*) addressed the following letter to the Commission in support of Dr. Holthuis' application (Needler, 1951, *Bull. zool. Nomencl.* **2** : 342) :—

I have received a copy of Dr. L. B. Holthuis's application (Z.N.(S.)231) to validate the generic names *Alpheus* Fabricius, 1798, and *Crangon* Fabricius, 1798, and I should like to support it. In common with most Americans and Canadians, I have been using *Crangon* Weber, 1795, and *Crago* Lamarck, 1801, for these genera, but this practice leads to many muddles and should be abandoned.

16. Support received from Dr. Heinrich Balss (Hauptkonservator der Zoologischen Staatssammlung, München a. D., Germany) : On 6th July 1951 Dr. Heinrich Balss (*Hauptkonservator der*

Zoologischen Staatssammlung, München a. D.) addressed the following letter to the Commission in support of the present and certain other applications submitted by Dr. Holthuis (Balss, 1951, *Bull. zool. Nomencl.* 2 : 344) :—

Mr. L. B. Holthuis hat mir eine Reihe von Anträgen an die internationale Nomenklaturkommission zugesandt (Commission's references Z.N.(S.) 231 (*Crangon*), 209 (*Ligia*), 473 (*Scyllarides*), 474 (*Lysiosquilla*), 475 (*Odontodactylus*)).

Ich erlaube mir, Ihnen mitzuteilen, dass ich mit allen seinen Vorschlägen einverstanden bin.

17. Support received from Professor E. Sollaud (Université de Lyon, Faculté des Sciences, Lyon) : On 11th July 1951 Professor E. Sollaud (*Université de Lyon, Faculté des Sciences, Lyon*) addressed to the Commission the following letter in support of the present and certain other applications submitted by Dr. Holthuis (Sollaud, 1951, *Bull. zool. Nomencl.* 2 : 344) :—

Je reçois de mon collègue et ami Mr. Holthuis, du Muséum de Leide, cinq notes relative à des propositions faites à l'International Commission on Zoological Nomenclature au sujet d'un certain nombre de noms de genres de Crustacés (Commission's references Z.N.(S.) 231 (*Crangon*), 209 (*Ligia*), 473 (*Scyllarides*), 474 (*Lysiosquilla*), 475 (*Odontodactylus*)).

Je vous informe que, après avoir lu attentivement ces notes, j'approuve entièrement les propositions de Mr. Holthuis. J'estime qu'une application rigoureuse, en toutes circonstances, du loi de priorité conduirait à d'inextricables confusions et, bien loin de servir notre science, lui serait très préjudiciable. Il est impossible d'abandonner de noms tels que *Ligia*, *Crangon*, *Alpheus*, . . ., qui sont passés dans le langage courant, et votre Commission fera oeuvre bien utile en freinant l'ardeur des "puristes" de la Priorité.

18. Support received from Dr. Ricardo Zariquiey (Enfermedades de la Infancia, Barcelona, Spain) : In a letter dated 25th July 1951 Dr. Ricardo Zariquiey (*Enfermedades de la Infancia, Barcelona, Spain*) notified as follows his support for the present and certain

other applications submitted by Dr. Holthuis (*Zariquiey*, 1951, *Bull. zool. Nomencl.* 6 : 72) :—

Estudiadas detenidamente las propuestas Z.N.(S.) 231 sobre el uso de los nombres genéricos *Crangon* Fabricius, 1798, y *Alpheus* Fabricius, 1798, la Z.N.(S.) 209 sobre el uso del nombre genérico *Carcinus* Leach, 1814, y la Z.N.(S.) 473 sobre el nombre genérico *Scyllarides* Gill, 1898, debo manifestarle que estoy de acuerdo con las conclusiones de las mismas y que Voto "SI" a lo que propone el Dr. L. B. Holthuis, ponente de las mismas.

19. Objection received from Professor Albert H. Banner (University of Hawaii, Honolulu, Territory of Hawaii) : In a letter dated 24th October 1950 Professor Albert H. Banner (*University of Hawaii, Honolulu, Territory of Hawaii*) intimated as follows his objection to the proposal submitted by Dr. Holthuis (Banner, 1951, *Bull. zool. Nomencl.* 2 : 74—75) :—

I have been apprised by Dr. Fenner A. Chace, of the U.S. National Museum, of the proposal of Dr. L. B. Holthuis that the International Commission on Zoological Nomenclature use its Plenary Powers to suppress the names *Crangon* Weber and *Crago* Lamarck for *Alpheus* and *Crangon* of Fabricius. As I have devoted some time to the taxonomy of the Hawaiian members of the CRANGONIDAE (OR ALPHEIDAE) and as I have reviewed the literature on this change in names, I should like to submit my views.

I believe that it was most unfortunate that this most confusing change in names was made. However, on the basis of *Opinion 17* of the Commission, any carcinologist abiding by the rules of nomenclature had two alternatives : to accept the ruling or to appeal for a suspension of the rules. In the forty years since the decision there has been no official appeal in proper form until now, and many later taxonomists have used the names of Weber in good faith, abiding by the rules of nomenclature and the rulings of the Commission.

I believe that a suspension of the rules at this late date would not only confuse the literature further, but would also in effect penalise those who followed the rulings of the International Commission on Zoological Nomenclature. I suggest, therefore, that the proposal of Dr. Holthuis be rejected.

20. Objection received from Dr. Herbert M. Hale (The South Australian Museum, Adelaide, South Australia) : In a letter dated

1st November 1950 Dr. Herbert M. Hale (*The South Australian Museum, Adelaide, South Australia*) intimated as follows his objection to the proposal submitted by Dr. Holthuis (Hale, 1952, *Bull. zool. Nomencl.* **6** : 181) :—

I am interested to learn that Dr. L. B. Holthuis of the Rijksmuseum in Leiden has applied to the International Commission on Zoological Nomenclature for a suspension of the rules to allow for the reinstatement of *Alpheus* of Fabricius for *Crangon* of Weber and of *Crangon* of Fabricius for *Crango* of Lamarck.

Together with a number of other working carcinologists I have accepted, in my taxonomic papers, Weber's names for the genera concerned. One can understand the desire of some workers, particularly those in Europe to retain *Alpheus* and *Crangon* of Fabricius particularly as the genera contain well-known forms repeatedly referred to in text books, etc., for many years. However, I do feel that as *Crangon* of Weber and *Crango* of Lamarck have been recognised and used for such a long time, particularly by most of the active workers in the United States, the restoring of the old names now is not advisable.

21. Objection received from Dr. Waldo L. Schmitt (Head Curator, Department of Zoology, Smithsonian Institution, U.S. National Museum, Washington, D.C., U.S.A.) : In the following letter dated 30th November 1950 Dr. Waldo L. Schmitt (*Head Curator, Department of Zoology, Smithsonian Institution, U.S. National Museum, Washington, D.C., U.S.A.*) notified the Commission of his objection to the proposal submitted by Dr. Holthuis (Schmitt, 1951, *Bull. zool. Nomencl.* **2** : 340) :—

I am still hoping that there may be an opportunity for the weight of opinion to insure the retention of the use of *Crangon* Weber for *Alpheus* and *Crango* Lamarck for the genus formerly known as *Crangon*. I was much impressed by a survey made by Dr. Chace as long ago as 20th October¹. It bears out my opinion of the feelings of the majority of the carcinologists and especially of American workers. Taxonomists have been accused of never being happy unless they could change names, but in this case a majority opinion should have some weight.

22. Objection received from Dr. Frank A. McNeill (Australian Museum, Sydney, New South Wales) : On 2nd January 1951

¹ For Dr. Chace's survey, see paragraph 7 above.

Dr. Frank A. McNeill (*Australian Museum, Sydney, New South Wales*) addressed the following letter to the Commission intimating his objection to the proposal submitted by Dr. Holthuis (McNeill, 1951, *Bull. zool. Nomencl.* **2** : 341) :—

My American colleague, Fenner A. Chace, Jr., has written me and given details of Dr. L. B. Holthuis's application to the International Commission on Zoological Nomenclature. He also included in his letter a copy of the case he prepared and submitted to you for the consideration of the Commission.

Dr. Chace's case is presented in a fair and logical way. It is in complete agreement with my views on the matter and in accordance with modern accepted usage. There are, however, one or two points that I would like to contribute to the discussion. First, I have always been an adherent to the golden rule of priority; this is one of the foundation stones of our taxonomic science today. At times a worker must find it a nuisance, but no amount of argument can get around the right of an earlier accepted author's claim to recognition. The law of priority has been clearly set out by the Commission and it would surely lose in standing and confidence if it started now to make exceptions.

This " *Alpheus—Crangon* issue " has a classical parallel in taxonomy. I refer to Alcock's impassioned appeal for the retention of *Gelasimus* (Fiddler Crabs) as against the prior name *Uca*. In any consideration on the question under discussion this appeal of Alcock's should be carefully considered by the Commission; the reference is: 1900, *J. asiat. Soc. Bengal* (Pt. 2) **69**(3) : 350. Every carcinologist today knows that this was a lost cause, for it is a rarity for the old name *Gelasimus* to appear in modern literature.

23. Objection received from Professor Charles H. Blake (Massachusetts Institute of Technology, Cambridge, Mass., U.S.A.) : On 8th August 1951 Professor Charles H. Blake (*Massachusetts Institute of Technology, Cambridge, Mass., U.S.A.*) addressed the following letter to the Commission, in which he discussed the present and certain other applications which had then been recently published in the *Bulletin of Zoological Nomenclature* and intimated his objection to the action proposed in the present case by Dr. Holthuis (Blake, 1952, *Bull. zool. Nomencl.* **6** : 182—183):—

1. I should like to make comments on three nomenclatorial cases which are pending. They bear the file numbers (Z.N.(S.) 231, 209 and

501). The first two cases bear on the acceptability of the infamous Weber publication.

2. In 1904 the International Commission regarded Weber's work as legally published in spite of the fact that for more than a century it had not been regarded by most authors as legitimately, that is ethically, published. There seems to be no doubt that Weber was, in fact, a sort of zoological pirate. The question as to whether Fabricius deliberately crossed Weber up in 1798 when he himself published his own names is not important. The difficulty seems to arise from the fact that the Commission in 1904 took a strictly legalistic view of the matter, and from that point of view their decision is correct ; but they failed to take into account two things : (1) that the non-use of Weber's names had in fact established an unwritten precedent, and (2) that, based on the maxim *stare decisis*, the Commission would have been better advised to have followed that use rather than to overthrow it on technical grounds. Zoological nomenclature as a whole has suffered in part from the fact that unwritten and traditional decisions have been either accepted or ignored in a rather uncertain fashion.

3. In a previous letter I mentioned the maxim *stare decisis* I believe, and I take the liberty here of quoting from Baldwin's 1928 edition of Bouvier's *Law Dictionary*, pages 1127—1128 as to the view taken of the maxim in the United States and I would assume that the English view of it would be essentially similar. The maxim may be defined as follows ; "When a point has been settled by decision, it forms a precedent which is not afterwards to be departed from." "A court . . . should consider how far its action would affect transactions entered into and acted upon, under the law as it exists ; 11 Tex. 455 " ; "but where a decision relates to the validity of certain modes of transacting business, and a change of decision must necessarily invalidate everything above in the mode prescribed by the former case . . . the maxim becomes imperative . . . 15 Wisc. 691 ".

4. It must be admitted at this point that the maxim may strike continental European jurists with considerably less force than it has for the Anglo-Saxon jurist. This does not make it any less sound. Turning now to File Z.N.(S.)231, I would associate myself with Fenner Chace's opinion as to the use of the generic names *Crago* and *Crangon*. Here I mention a point with regard to the objection raised as to the similarity of family names derived from these two generic names. There is a much worse and unavoidable case which nonetheless has caused no confusion. In the beetles we have an occasionally used family name LARIDAE from the genus *Lara*. In birds we have the same family name based on the genus *Larus* and in wasps the family LARRIDAE based on the generic name *Larra*. Granted these all occur in different orders rather than within the same order. However nearly identical sub-family names occur in the crustacean family CYTHEREIDAE without

causing confusion. Therefore, I hold that the similarity of family names is no bar to the employment of *Crago* and *Crangon*.

5. With reference to File Z.N.(S.)209, on the basis of usage I think we should certainly accept *Ligia* of Fabricius, 1798, in spite of the fact that the Weber application of *Ligia* is older. Here we might argue that *Ligia* is a genus not much treated by American authors who tend to accent Weber and hence the weight of opinion rests on the Europeans. However, this would mean contravening the decision of the International Commission, while upholding it in the previous case. If this be done, then we have in effect nullification and while nullification is a time-honoured American method of popular legislation, I think it would be unsafe to introduce it into the legislation with regard to zoological nomenclature. Hence, as regards these two cases, I would like to see the opinion of 1904 stand in spite of the fact that it may appear to cause some confusion. Here, I think, no further confusion will be caused than already exists.

6. Turning now to File Z.N.(S.)501, the apparent situation is somewhat similar. It would appear that Meigen himself wished to suppress his names of 1800 in favour of those of 1803. And the Commission might, in *Opinion* 28, have been better advised to follow Meigen rather than the letter of the law. However, the instant case *Tylos* versus *Micropeza* is not as simple as some of the other cases may be. There is a genus *Tylos* in the Isopod Crustacea proposed by V. Audouin in 1825. This genus, which is the type genus of the family and the sole genus of the family, has enjoyed uninterrupted use since that time. There exists only one possible synonym due to L. Koch in 1856. In spite of the testimony of von Ebner in 1868, the title of Koch's name to be considered a synonym of *Tylos* is clouded. It has never been employed as an accepted generic name since 1856. We may set then this uninterrupted use of the generic name *Tylos* against the fact that on Aczél's own showing the name was used in the Diptera only occasionally so recently as 1932 and certainly *Micropeza* is fully as well known. Parenthetically, the family name TYLIDAE in the Crustacea dates back at least to 1885 while in the Diptera it dates only from 1931. Therefore, in this case it would seem as though there would be less ultimate confusion if *Tylos* of Meigen were declared ineligible, not on the basis of a reversal of *Opinion* 28, but rather on the basis that it comes into conflict with a name in another group which has enjoyed a century and a quarter of uninterrupted use ; use which dates back to the days when Meigen's own wishes with regard to the names of 1800 were followed.

24. Objection received from Dr. Belle A. Stevens (University of Washington, Department of Zoology, Seattle, Washington, U.S.A.) : On 13th August 1951 Dr. Belle A. Stevens (*University of Washington, Department of Zoology, Seattle, Washington, U.S.A.*) intimated

as follows her objection to the application submitted by Dr. Holthuis (Stevens, 1952, *Bull. zool. Nomencl.* 6 : 184) :—

Having read Dr. L. B. Holthuis's proposals relating to the generic names *Crangon* Weber, 1795, and *Crangon* Fabricius, 1798 (1951, *Bull. zool. Nomencl.* 2 : 69—72), I wish to present the following :

In connection with my work on the Caridea of the coast of Washington, I have had occasion over a period of several years to investigate rather thoroughly the *Crangon-Crago* matter. I greatly appreciate the clear statement of the case by Dr. Holthuis and deeply regret that something of this sort was not brought forth and an appeal for suspension of the rules presented years ago by someone among the older carcinologists who disregarded *Opinion* 17 of the Commission.

At this point nothing can be done to completely obliterate the existing confusion. I quite agree with Dr. Fenner A. Chace and Dr. Albert H. Banner that the change proposed by Dr. Holthuis is not now desirable. Such a change would needlessly magnify unfortunate systematic procedure of the past and due to the large volume and range of the literature involved, be very cumbersome to put into effect. Experienced workers in systematic zoology are capable of comprehending a brief statement of the facts concerned and other workers readily accept their findings. It seems to me expedient that the proposals of Dr. Holthuis be rejected.

25. Extension of the Period of Public Notice to 20th April 1952 :

As the present application was published on 20th April 1951, the Prescribed Period of Public Notice would normally have expired on 20th October, 1951. As will be seen from the preceding paragraphs, the greater part of the comments on Dr. Holthuis's proposals was received in July 1951, though several were not received until various dates in August 1951. At the end of September 1951, the position in this matter was reviewed by the Secretary who took the view that, having regard to the marked divergence of practice among carcinologists in the present case, it was particularly important that the fullest opportunity should be given to specialists to submit their views to the Commission on Dr. Holthuis's application. The Secretary took note also that in view of the large number of cases on which *Opinions* were due to be prepared as the result of the decisions taken by the Commission in Paris in 1948, the grant of an extension of the Period of Notice

would in practice be unlikely to lead to any actual delay in the preparation of an *Opinion* in the present case. Accordingly, on 28th September 1951, the Secretary signed a Minute directing the extension for a further six months of the Prescribed Period of Notice in the present case. Under this decision the foregoing Period was extended to 20th April 1952.

26. Response to the decision to extend the Prescribed Period of Public Notice in the present case : During the second period of six months provided under the decision described in paragraph 25 above, only one further comment was received and it became evident therefore that no further statements were likely to be received, all those specialists who wished to comment on this case having already done so. The single comment received during the extension of the Period of Public Notice came from Dr. Isobel Gordon (*British Museum (Natural History), London*). Dr. Gordon's communication is reproduced in the immediately following paragraph.

27. Support received from Dr. Isobel Gordon (British Museum (Natural History), London) : On 29th October 1951, Dr. Isobel Gordon (*British Museum (Natural History) London*) addressed the following letter to the Commission intimating her support for the present and certain other proposals submitted by Dr. Holthuis (Gordon, 1952, *Bull. zool. Nomencl.* 6 : 183) :—

I wish to say that I am willing to add my support to all the proposals submitted to the International Commission on Zoological Nomenclature by Dr. L. B. Holthuis :

Commission's Reference	Z.N.(S.)231	(<i>Crangon</i>)
„	„	Z.N.(S.)209 (<i>Ligia</i>)
„	„	Z.N.(S.)473 (<i>Scyllarides</i>)
„	„	Z.N.(S.)474 (<i>Lysiosquilla</i>)
„	„	Z.N.(S.)475 (<i>Odontodactylus</i>)

28. Procedure followed in submitting the present case to the Commission for decision : Shortly after the close of the Prescribed

Period of Public Notice, as extended by the Minute executed by the Secretary to the Commission on 28th September 1951 (paragraph 25 above), consideration was given to the question of the procedure to be adopted in submitting the present case to the Commission for decision. On this matter, the Secretary took the view that the present was not a case where it would be sufficient to invite the Commission to vote either for, or against, Dr. Holthuis's application and that the better course would be to lay before the Commission the drafts of two alternative decisions, each of an affirmative character, the one giving effect to the application submitted by Dr. Holthuis, the other setting forth the action which would be required in the event of the Commission deciding to reject that application. The adoption of this course involved certain further investigations in view of the fact that, while in his application Dr. Holthuis had set out in detail the action which would be necessary to give effect to his proposals, he had naturally not examined in equal detail the action which would be needed in the event of the Commission finding itself unable to grant that application. A request for this information was made to Dr. Holthuis in June 1952 and the whole of it was obtained by September 1952. The Secretary thereupon prepared two documents² for the consideration of the Commission. In the first of these documents ("Sheet No. 1") Mr. Hemming drew attention to the comments which had been received and gave references to the places in the *Bulletin of Zoological Nomenclature* where those comments had been published. At the same time Mr. Hemming explained the procedure which he suggested should be adopted by the Commission in coming to a decision on the present case. In the second document ("Sheet No. 2") Mr. Hemming submitted the alternative draft decisions which he had prepared for the consideration of the Commission. The first of these drafts (Alternative "A") set out the action which would be required to give effect to the proposals submitted by Dr. Holthuis, the second (Alternative "B") the action which would be needed in the event

² The two documents prepared by Mr. Hemming here referred to were reproduced in facsimile in Annexe 2 to Document 64/2 submitted to the Colloquium on Zoological Nomenclature at Copenhagen in 1953. This was a paper which was prepared for the purpose of explaining the procedure followed in the submission of cases to the Commission for decision by Postal Vote (Hemming, 1953, *Bull. zool. Nomencl.* 10 : 487—491).

of the rejection of Dr. Holthuis's application. The drafts so prepared were as follows :—

ALTERNATIVE "A"

(Adoption of Dr. L. B. Holthuis's proposal)

(1) Under the Plenary Powers the generic names *Alpheus* Weber, 1795, and *Crangon* Weber, 1795, are hereby suppressed for the purposes both of the Law of Priority and of the Law of Homonymy. (2) The following names are hereby placed on the *Official List of Generic Names in Zoology* : (a) *Alpheus* Fabricius, 1798 (masculine) (type species, by selection by Latreille (1810) : *Alpheus avarus* Fabricius, 1798) ; (b) *Crangon* Fabricius, 1798 (feminine) (type species, by absolute tautonomy : *Cancer crangon* Linnaeus, 1758). (3) The following names are hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* : (a) *Alpheus* Weber, 1795, and (b) *Crangon* Weber, 1795 (both as suppressed under (1) above), (c) *Crago* Lamarck, 1801 (an objective junior synonym of *Crangon* Fabricius, 1798). (4) The following names are hereby placed on the *Official List of Specific Trivial Names in Zoology* : (a) *avarus* Fabricius, 1798, as published in the combination *Alpheus avarus* (trivial name of type species of *Alpheus* Fabricius, 1798) ; (b) *crangon* Linnaeus, 1758, as published in the combination *Cancer crangon* (trivial name of type species of *Crangon* Fabricius, 1798).

ALTERNATIVE "B"

(Rejection of Dr. Holthuis's proposal)

(1) The application for the suppression under the Plenary Powers of *Alpheus* Weber, 1795, and of *Crangon* Weber, 1795, is hereby rejected. (2) The following names are hereby placed on the *Official List of Generic Names in Zoology* : (a) *Crangon* Weber, 1795 (feminine) (type species, by monotypy : *Astacus malabaricus* Fabricius, 1775) ; (b) *Crago* Lamarck, 1800 (masculine) (type species, by monotypy : *Cancer crangon* Linnaeus, 1758). (3) The following names are hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* : (a) *Alpheus* Weber 1795 (as objective junior synonym of *Cancer* Linnaeus, 1758, having the same species, *Cancer pagurus* Linnaeus, 1758, as its type species, that species having been so selected for *Cancer* Linnaeus by Latreille (1810) and for *Alpheus* Weber by Rathbun (1930)) ; (b) *Alpheus* Fabricius, 1798 (an objective junior homonym of *Alpheus* Weber, 1795) ; (c) *Crangon* Fabricius, 1798 (an objective junior homonym of *Crangon* Weber, 1795). (4) The following names are

hereby placed on the *Official List of Specific Trivial Names in Zoology* : (a) *crangon* Linnaeus, 1758, as published in the combination *Cancer crangon* (trivial name of type species of *Crango* Lamarck, 1800) ; (b) *malabaricus* Fabricius, 1775, as published in the combination *Astacus malabaricus* (trivial name of type species of *Crangon* Weber, 1795) ; (c) *avarus* Fabricius, 1798 (as published in the combination *Alpheus avarus*).

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

29. Issue of Voting Paper V.P.(53)4 : On 2nd January 1953, a Voting Paper (V.P.(53)4) was issued in which the Members of the Commission were invited to vote " for the proposal set out in the annexed Sheet No. 2 :—ALTERNATIVE "A" (Dr. Holthuis's proposal) OR for ALTERNATIVE " B " (action required if Dr. Holthuis's proposal were to be rejected)". For the texts of the draft Alternatives so submitted see paragraph 28 of the present *Opinion*.

30. The Prescribed Voting Period for Voting Paper V.P.(53)4 : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 2nd April 1953. On that date there were still three Voting Papers which had not been returned by Commissioners and it appeared therefore to the Secretary to be expedient that the Prescribed Voting Period should be extended for a brief further period. Accordingly, on 1st April 1953, Mr. Hemming, as Secretary, executed a Minute extending the Prescribed Voting Period in this case for a further period of fourteen days. Under the direction so given the Prescribed Voting Period in the present case expired on 16th April 1953.

31. Particulars of the Voting on Voting Paper V.P.(53)4 : The state of the Voting on Voting Paper V.P.(53)4 at the close of the Prescribed Voting Period, as extended by the Minute executed by the Secretary on 1st April 1953 (paragraph 30 above), was as follows :—

(a) *Votes had been given in favour of Alternative "A" (Dr. Holthuis's proposal) by the following twelve (12) Commissioners (arranged in the order in which Votes were received) :*

Lemche ; Hering ; Bradley ; Dymond ; Esaki ; Bonnet ;
Jaczewski ; Riley ; do Amaral ; Hankó ; Hemming ;
Boschma ;

(b) *Votes had been given in favour of Alternative "B" (rejection of Dr. Holthuis's proposal) by the following three (3) Commissioners :*

Vokes ; Stoll ; Cabrera ;

(c) *On Leave of Absence, one (1) :*

Mertens ;

(d) *Voting Papers not returned, one (1) :*

Pearson.

32. Declaration of Result of Vote on Voting Paper V.P.(53)4 : On 17th April 1953, Mr. Francis Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(53)4, signed a Certificate that the Votes cast were as set out in paragraph 31 above and declaring that, as the proposal submitted as Alternative "A" had not only received a majority of the votes cast but had also, as required for the adoption of a proposal involving the use of the Plenary Powers, received not less than two affirmative votes out of every three votes cast, the said proposal had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

33. **The Family-Group-Name aspect of the present case :** The greater part of the main text of the present *Opinion* had been completed by the early summer of 1954. The decision taken by the Commission in the present case in its Vote on Voting Paper V.P.(53)4, though it dealt with all matters which were relevant at the time when it was issued, had however later been rendered incomplete by the decision taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, to establish an *Official List of Family-Group Names in Zoology* and a corresponding *Official Index of Rejected and Invalid Family-Group Names in Zoology* and to prescribe for the *Official List* and *Official Index* so established Regulations corresponding with those already prescribed for the *Official Lists* and *Official Indexes* established for names of taxa belonging to other categories. For under these decisions it became the duty of the Commission to examine the family-group-name aspect of each proposal involving the status of generic names submitted to it for decision. Mr. Hemming, as Secretary, took the view that, having regard to the wide general interest of the principal generic name involved in the present case (the name *Crangon*) it was desirable that the *Opinion* containing the Commission's decision on this important case should cover the whole of the ground involved, rather than it should deal only with the genus-name aspect of the problem, that concerned with the family-group-name aspect being deferred for later consideration. Mr. Hemming accordingly decided to set aside for the time being the preparation of the *Opinion* embodying the decision taken on Voting Paper V.P.(53)4, in order thereby to provide an opportunity for ascertaining the position as regards the family-group names involved in the present case and for submitting proposals to the Commission in regard thereto. Correspondence with Dr. L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*), the original applicant in the present case, was completed by 16th July 1954 and on 21st July 1954 Mr. Hemming submitted to the Commission a paper bearing the Registered Number Z.N.(S.)849 setting out the information which he had collected in regard to the family-group names involved and submitting recommendations for the consideration of the Commission. In the same paper Mr. Hemming submitted a proposal for rectifying a minor omission in the proposals previously voted on for the addition of names to the *Official List of Specific Names in Zoology*. The first two paragraphs of Mr. Hemming's paper

contained a recital of the circumstances which had led up to the submission of the proposals then laid before the Commission. The remainder of the paper was as follows :—

Proposed addition to the “ Official List ” and “ Official Index ” for Family-Group Names of the names involved in connection with the generic names “ Crangon ” Fabricius, 1798, and “ Alpheus ” Fabricius 1798 (Class Crustacea, Order Decapoda)

By FRANCIS HEMMING, C.M.G., C.B.E.,

Secretary to the International Commission on Zoological Nomenclature

.....

3. It will be recalled that the principal question involved in Dr. Holthuis's application was whether the generic name *Crangon* should, as he recommended, be validated as from Fabricius, 1798, for use for the Common European Shrimp or whether that name should be accepted as from Weber, 1795, and applied to the Snapping Shrimps. The former of these courses had been in universal use until the publication in 1904 of the late Miss Mary Rathbun's paper, drawing attention to Weber's priority over Fabricius. Since that time the Weber usage had come into wide use in North America, while in Europe and most other parts of the world the admittedly invalid Fabrician usage had held its ground for the Common Shrimp, as had also that of the name *Alpheus* Fabricius, 1798, for the Snapping Shrimps. As explained in Dr. Holthuis's application, the lack of uniformity in practice described above extended to the family-name level also, for those specialists who applied the Law of Priority strictly and therefore accepted the Weber names employed the family-name CRAGONIDAE for the Common Shrimp and the name CRANGONIDAE for the Snapping Shrimps, while those specialists who adhered to the pre-Rathbun usage continued to employ the name CRANGONIDAE for the Common Shrimp and the name ALPHEIDAE for the Snapping Shrimps.

4. In its Vote on Voting Paper V.P.(53)4, the Commission used its Plenary Powers (a) to validate the generic names *Crangon* Fabricius, 1798, and *Alpheus* Fabricius, 1798, and (b) to suppress the generic names *Crangon* Weber, 1795, and *Alpheus* Weber, 1795. The effect of these decisions at the family-name level was (1) to provide a valid basis for the family names CRANGONIDAE (type genus : *Crangon* Fabricius, 1798) and ALPHEIDAE (type genus : *Alpheus* Fabricius, 1798) and (2) to invalidate the family names CRAGONIDAE (family-name based on *Crago* Lamarck, 1801, a junior objective synonym of *Crangon* Fabricius, 1798,

a name validated, as above, under the Commission's Plenary Powers) and CRANGONIDAE (family name based on *Crangon* Weber, 1795, a name suppressed, as shown above, under the Commission's Plenary Powers). Under the Regulations governing the *Official List* and *Official Index* for Family-Group Names, the names comprised in the first pair of names cited above fall now to be placed on the *Official List*, while those comprised in the second pair of names, being both objectively invalid, fall to be placed on the *Official Index of Rejected and Invalid Names*.

5. In order to ascertain by whom, when, and where the foregoing family-group names had first been published, I made application to Dr. Holthuis who, as I knew, had made a close study of the literature relating to the Caridean Crustacea. At the same time I asked Dr. Holthuis to furnish particulars of any objectively invalid family-group names based upon the names of the foregoing nominal genera that at any time had been published. An extract from Dr. Holthuis's reply (dated 9th July 1954) in which he supplied the required information is given in the Annexe to the present paper.

6. I now recommend that, having regard to the decision taken in Voting Paper V.P.(53)4 to validate the generic names *Crangon* and *Alpheus* as from Fabricius, 1798, and paying regard also to the directions prescribed by the International Congress of Zoology in the Regulations adopted by it in relation to the *Official List of Family-Group Names in Zoology* and the *Official Index of Rejected and Invalid Family-Group Names in Zoology*, the Commission should now :—

(1) place the under-mentioned names on the *Official List of Family-Group Names in Zoology* :—

- (a) ALPHEIDAE (correction by Randall (1839) of ALPHIDIA) Rafinesque, 1815 (type genus : *Alpheus* Fabricius, 1798, a genus having a name validated under the Plenary Powers by the vote taken on Voting Paper V.P.(53)4) ;
- (b) CRANGONIDAE White, 1847 (type genus : *Crangon* Fabricius, 1798, a genus having a name validated under the Plenary Powers by the vote taken on Voting Paper V.P.(53)4) ;

(2) place the under-mentioned names on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* :—

- (a) the following family-group names for the taxon having *Alpheus* Fabricius, 1798, as type genus :—
 - (i) ALPHIDIA Rafinesque, 1815 (an Invalid Original Spelling for ALPHEIDAE) ;

- (ii) ALPHEENS Milne Edwards (H.), 1837 (invalid because a vernacular (French) word and not a Latin or Latinised word) ;
 - (iii) ALPHAEIDAE Balss, 1915 (an Erroneous Subsequent Spelling for ALPHEIDAE (correction of ALPHIDIA) Rafinesque, 1815) ;
 - (iv) ALPHEUIDAE Yu, 1936 (an Erroneous Subsequent Spelling for ALPHEIDAE (correction of ALPHIDIA) Rafinesque, 1815) ;
- (b) CRAGONIDAE, Rathbun, 1904 (type genus : *Crago* Lamarck, 1801) (invalid because the type genus of the family so named has, as its type species, *Cancer crangon* Linnaeus, 1758, which is also the type species of *Crangon* Fabricius, 1798 (a name validated under the Plenary Powers by the vote taken on Voting Paper V.P.(53)4, which is the type genus of the family CRANGONIDAE White, 1847, placed on the *Official List* under (1) (b) above)
 - (c) CRANGONIENS Milne Edwards (H.), 1837 (type genus : *Crangon* Fabricius, 1798) (invalid because a vernacular (French) word and not a Latin or Latinised word)
 - (d) CRANGONIDAE Rathbun, 1904 (type genus : *Crangon* Weber, 1795) (invalid because the generic name *Crangon* Weber, 1795, has been suppressed under the Plenary Powers under the vote taken on Voting Paper V.P.(53)4 and because the name CRANGONIDAE Rathbun, 1904, is a junior homonym of the name CRANGONIDAE White, 1847 (type genus : *Crangon* Fabricius, 1798) placed on the *Official List* under (1) (b) above)

7. The bibliographical references which it is proposed to assign to the foregoing names when they are entered in the *Official List* and *Official Index* for family-group names are those supplied in Dr. Holthuis's letter of 9th July 1954 reproduced in the Annexe to the present paper.

8. I further propose that the present opportunity should be taken to remedy a minor omission in the decision taken on Voting Paper V.P.(53)4. In the second of the alternatives on which the Commission then voted (Alternative "B") it was proposed that the specific name *malabaricus* Fabricius, 1775, as published in the combination *Cancer malabaricus*, should be placed on the *Official List of Specific Names in Zoology*, that name being the name of the type species of the genus *Crangon* Weber, 1795, which under Alternative "B" it was proposed to place on the *Official List of Generic Names*. Alternative "B" was rejected by the Commission, which, by accepting Alternative "A",

suppressed *Crangon* Weber, 1795, and validated *Crangon* Fabricius, 1798. This decision at the generic-name level does not affect the proposal relating to the specific name *malabaricus* Fabricius, and since that name as published in the combination cited above, is accepted by specialists as the oldest available name for the species concerned, it should, under the Rule that decisions in *Opinions* should be as complete as possible, be placed on the *Official List of Specific Names in Zoology*. I accordingly recommend that this action should now be taken.

ANNEXE

Extract from a letter dated 9th July 1954, from
Dr. L. B. Holthuis (Leiden)

“ *Crangon* ” and “ *Alpheus* ”

Thank you for your letter of 7th July. As regards the information that you have asked for, I can give you the following details :—

(1) The oldest available name that I can find for the family Crangonidae (Fabrician conception) is :—Crangonidae White, 1847, *List Crust. Brit. Mus.* : 73.

The oldest available name for the family Alpheidae is, I believe : *Alphidia* Rafinesque, 1815, *Anal. Nature* : 98. The first correct spelling for this name was published by Randall, 1839, *J. Acad. nat. Sci. Philad.* 8 : 140.

(2) The oldest available name for the family Cragonidae is : Cragonidae Rathbun, 1904, *Proc. biol. Soc. Wash.* 17 : 172. No other spelling of this name is known to me.

The oldest available name for the family Crangonidae (Weberian conception) is : Crangonidae Rathbun, 1904, *Proc. biol. Soc. Wash.* 17 : 172.

(3) The other objective synonyms of the name Alpheidae (Fabrician sense) that I know of are :—

Alphéens H. Milne Edwards, 1837, *Hist. nat. Crust.* 2 : 339, 345 (vernacular name)

Alphaeidae Balss, 1915, *Denkschr. Akad. Wiss. Wien* 91 : 20.

Alpheuidae Yu, 1936, *Chin. J. Zool.* 2 : 91.

The only other objective synonym of the name Crangonidae (Fabrician sense) as far as is known to me, is : Crangoniens H. Milne Edwards, 1837, *Hist. nat. Crust.* 2 : 339 (vernacular name).

34. Issue of Voting Paper V.P.(O.M.)(54)21 (relating to the family-group-name aspect of the "Crangon" case) : On 21st July 1954, a Voting Paper (V.P.(O.M.)(54)21) was issued in which the Members of the Commission were invited to vote either for, or against, the proposal "relating to the placing on the *Official List* and *Official Index* of the family-group names based upon the names of the genera *Crangon*, *Crago* and *Alpheus* as set out in paragraph 6 of the paper bearing the Registered Number Z.N.(S.)849 by the Secretary submitted simultaneously with the present Voting Paper and the proposal relating to the name *malabaricus* Fabricius, 1775, as published in the combination *Cancer malabaricus*, as set out in paragraph 8 of the same paper" [i.e. in paragraphs 6 and 8 of the paper reproduced in paragraph 33 of the present *Opinion*].

35. The Prescribed Voting Period for Voting Paper V.P.(O.M.)(54)21 : As Voting Paper V.P.(O.M.)(54)21 was issued under the One-Month Rule, the Prescribed Voting Period would normally have closed on 21st August 1954, but the Secretary decided that, having regard to the fact that this Voting Paper had been issued at a time of year when many zoologists were away from their headquarters either on field work or on holiday, it was desirable that an extension of the normal Voting Period should be granted in order to give every member of the Commission a full opportunity of voting on the present case. Mr. Hemming accordingly executed a Minute directing that the Prescribed Voting Period be extended to 12th September 1954 or the date of the return to the Office of the Commission of the last of the Voting Papers issued to Commissioners, whichever was the earlier. The last of the Voting Papers issued was received in the Office of the Commission on 6th September 1954, on which date therefore the Voting Period was brought to a close.

36. Particulars of the Voting on Voting Paper V.P.(O.M.)(54)21 : At the close of the Prescribed Voting Period, extended in the

manner explained in paragraph 35 above, the state of the voting on Voting Paper V.P.(O.M.)(54)21 was as follows :—

- (a) *Affirmative Votes had been given by the following nineteen (19) Commissioners (arranged in the order in which votes were received)*³ :

Hemming ; Holthuis ; Mertens ; Sylvester-Bradley ;
Hering ; Boschma ; do Amaral ; Riley ; Vokes ;
Bradley (J.C.) ; Lemche ; Esaki ; Stoll ; Pearson ;
Jaczewski ; Bonnet ; Dymond ; Cabrera ; Hankó ;

- (b) *Negative Votes :*

None ;

- (c) *Voting Papers not returned :*

None.

37. Declaration of Result of Vote on Voting Paper V.P.(O.M.) (54)21 : On 6th September 1954, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(O.M.)(54)21, signed a Certificate that the votes cast were as set out in paragraph 36 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

³ The following zoologists who were Members of the International Commission at the time of the issue of Voting Paper V.P.(O.M.)(54)21 were not Members of the Commission at the time of the issue of Voting Paper V.P.(53)4 :—

Mr. P. C. Sylvester-Bradley (*Sheffield University, Sheffield, England*)

Dr. L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

38. Preparation of the Ruling given in the present "Opinion" : On 8th September 1954 Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the Commission in its Vote on Voting Paper V.P.(53)4, as supplemented by its Vote on Voting Paper V.P. (O.M.)(54)21.

39. Original References : The following are the original references for the names placed on *Official Lists* and *Official Indexes* of generic and specific names by the Ruling given in the present *Opinion* :—

Alpheus Weber, 1795, *Nomencl. ent.* : 91
Alpheus Fabricius, 1798, *Suppl. Ent. syst.* : 380, 404
avarus, *Alpheus*, Fabricius, 1798, *Suppl. Ent. syst.* : 404
Crago Lamarck, 1801, *Syst. Anim. sans Vertèbr.* : 159
Crangon Weber, 1795, *Nomencl. ent.* : 94
Crangon Fabricius, 1798, *Suppl. Ent. syst.* : 387, 409
crangon, *Cancer*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 632

40. The following is the reference for the selection of the type species of the genus *Alpheus* Fabricius, 1798, cited in the Ruling given in the present *Opinion* :—Latreille, 1810, *Consid. gén. Anim. Crust. Arach. Ins.* : 422, 101.

41. The original references for the family-group names placed on the *Official List* and *Official Index* of names of taxa belonging to the family-group are as set out in the Annexe to the paper by the Secretary reproduced in paragraph 33 of the present *Opinion*.

42. At the time of the submission of the original application dealt with in the present *Opinion*, the expression prescribed for the second portion of the binomen which constitutes the scientific name of a species was the expression "trivial name" and the *Official List* reserved for recording such names was styled the *Official List of Specific Trivial Names in Zoology*, the word

“ trivial ” appearing also in the title of the *Official Index* reserved for recording rejected and invalid names of this category. Under a decision taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the expression “ specific name ” was substituted for the expression “ trivial name ” and corresponding changes were made in the titles of the *Official List* and *Official Index* of such names (1953, *Copenhagen Decisions zool. Nomencl.* : 21). The changes in terminology so adopted have been incorporated in the Ruling given in the present *Opinion*.

43. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

44. The present *Opinion* shall be known as *Opinion Three Hundred and Thirty-Four* (334) of the International Commission on Zoological Nomenclature.

DONE in London, this Eighth day of September, Nineteen Hundred and Fifty-Four.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

